US Robotics®

QUICK

START HERE

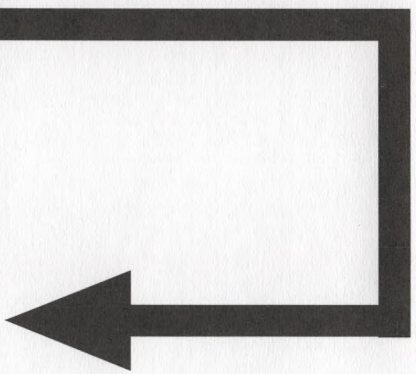
INSTALLATION & TROUBLESHOOTING

Sportster® MODEMS

U.S. Robotics®

QUICK

START HERE



INSTALLATION & TROUBLESHOOTING

Sportster® MODEMS

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Skokie, IL 60076-2999
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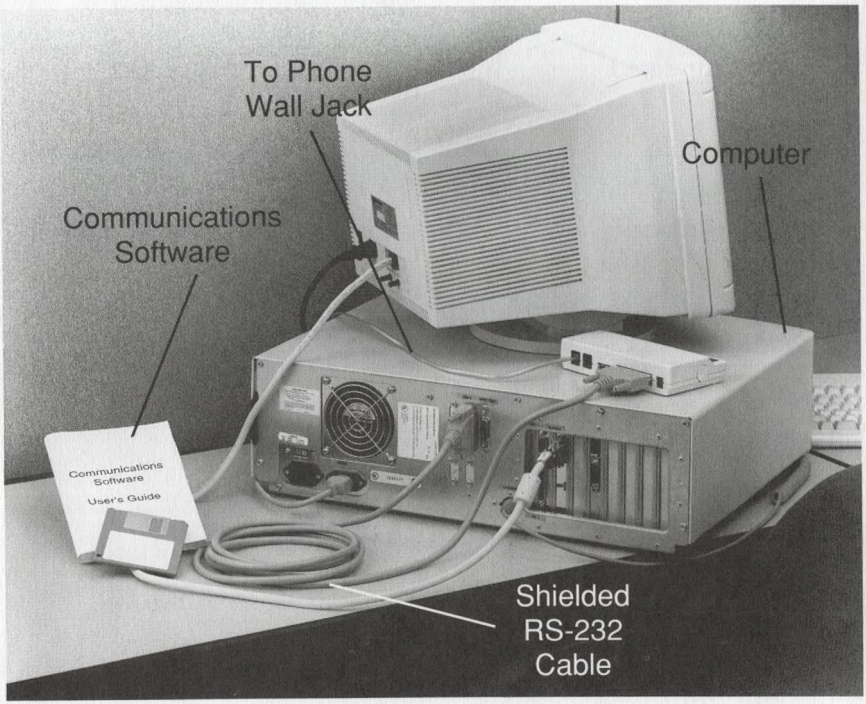
WE PROVIDE THE FOLLOWING

- √ Modem
- √ RJ-11 phone cord
- √ Power adapter
- √ *Quick Installation Guide*
- √ *User's Guide*
- √ Quick Reference Card
- √ Bottom label cheat sheet
- √ *STOP* guide—software setups
- √ WinFax LITE software/manual
- √ Warranty card

YOU ALSO NEED

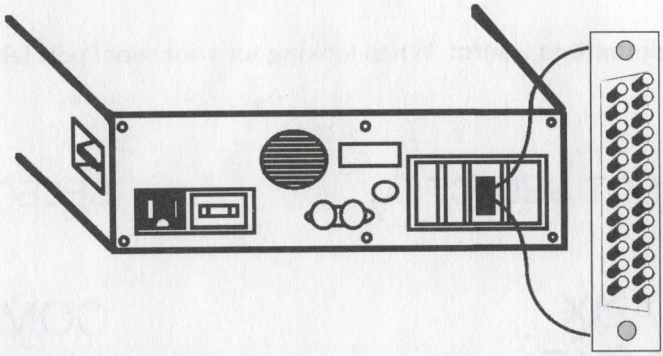


SERIAL PORT SELECTION

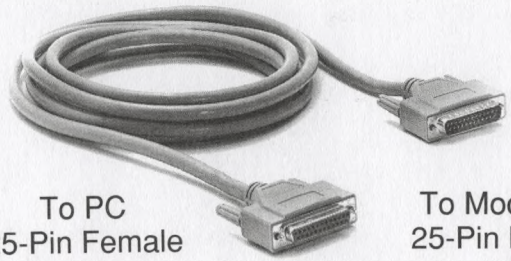
IBM PC-Compatible Users: When looking for your serial port label...

DO NOT SELECT...	SELECT...
~~AUX~~	COM*x*
~~GAME~~	MODEM
~~LPT~~	RS-232
~~PARALLEL~~	SERIAL

IF YOUR PC'S SERIAL CONNECTOR LOOKS LIKE THIS...



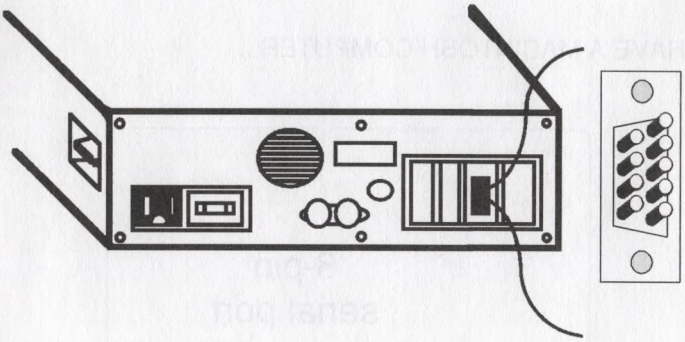
YOU NEED THIS RS-232 CABLE...



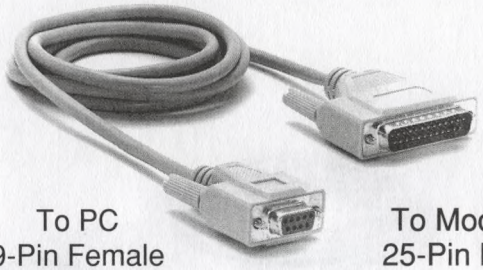
To PC
25-Pin Female

To Modem
25-Pin Male

IF YOUR PC'S SERIAL CONNECTOR LOOKS LIKE THIS...



YOU NEED THIS RS-232 CABLE...

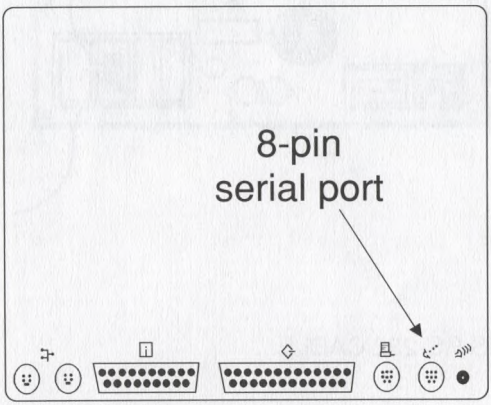


To PC
9-Pin Female

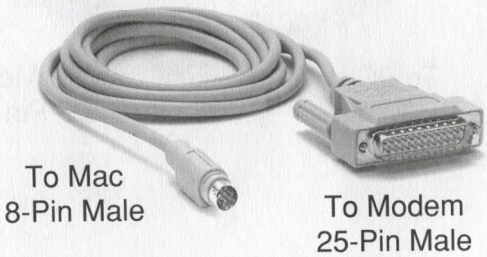
To Modem
25-Pin Male

MACINTOSH USERS

IF YOU HAVE A MACINTOSH COMPUTER...



YOU NEED THIS RS-232 CABLE... (Hardware handshaking strongly recommended).

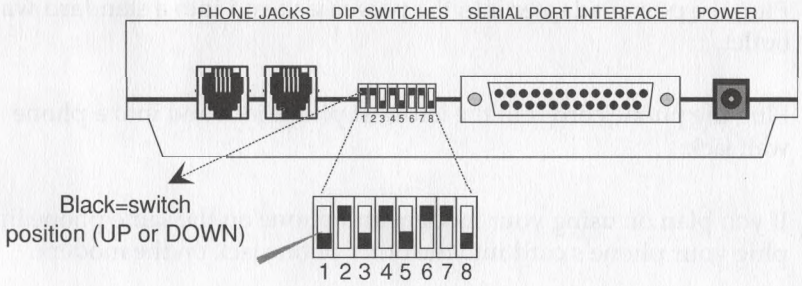


SPECIAL RS-232-CABLE ISSUES—MAC USERS AND 3-WIRE CABLE INSTALLATIONS

If you use a Macintosh computer and are not able to obtain a Macintosh Hardware Handshaking cable, or if your system requires a 3-wire cable, you need to adjust the modem as follows.

1. Turn the modem around so the back panel faces you.

2. With a small instrument, set DIP switch 1 DOWN so that the modem doesn't look for a Data Terminal Ready (DTR) signal from the computer.

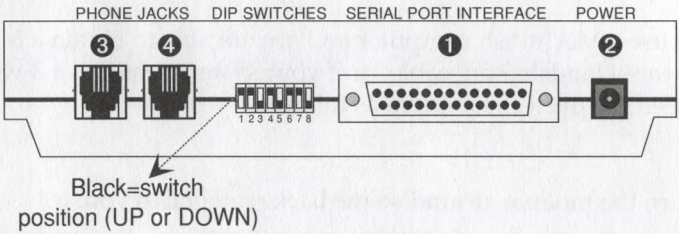


DIP Switch 1 DOWN

DIP switch 1 must be DOWN to *override* DTR, or the modem will be unable to operate.

MODEM INSTALLATION

Turn off your computer and any attached devices. Then match the number in the graphic with its corresponding step.



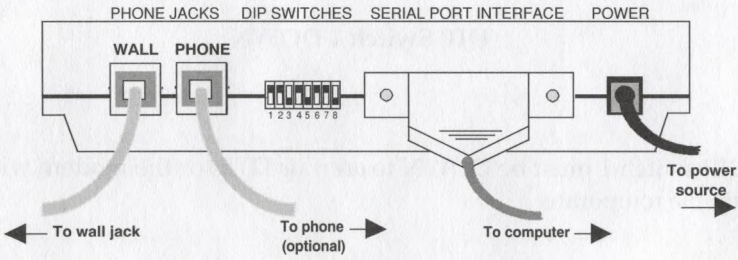
Sportster back panel

❶ Connect the RS-232 cable to the modem and to the computer. PC users will need to remember which serial port you selected.

❷ Plug the power adapter into the power jack and into a standard wall outlet.

❸ Plug the phone cord into the leftmost phone jack and into a phone wall jack.

❹ If you plan on using your modem and phone on the same phone line, plug your phone's cord into the other phone jack on the modem.



All cables connected properly

COMMUNICATIONS SOFTWARE INSTALLATION

When installing your communications software, refer to the software's documentation as well as the *STOP* guide provided by U.S. Robotics.

✍ **NOTE:** Communications software takes control of your system when it is running. Keep the Technical Support number of your communications software company handy in case you run into any difficulties installing or using the product.

Testing Your Installation

Refer to your communications software documentation where necessary.

1. Turn on your computer and modem. The modem's power switch is located on the top, left of the modem.

2. Start your communications software program.

3. Set the software's serial port (baud) rate to the highest rate your software supports, up to 57,600 bps. Also fix or lock the serial port rate (if referred to as *autobaud*, turn this function OFF).

4. Specify the serial port used by the modem. For PC-based computers, this is typically COM2 , for the Mac this is typically Modem.

5. Set the data format to a word length of 8 bits with no parity, and 1 Stop bit.

6. If your software does not automatically put your computer in *Terminal mode*, perform the necessary software function. A cursor appears on your screen, allowing you to send AT commands directly to the modem.

7. Type the following command to see if your computer and modem are communicating properly.

   AT <Enter>

   If everything is correct, the modem responds as follows.

   OK

   If no OK appears, or if double characters appear, see *Troubleshooting* later in this guide.

8. **Macintosh and 3-wire cable users:** If you are not able to obtain a Macintosh Hardware Handshaking cable, or if your system requires a 3-wire cable, type the following command once the modem responds OK. This loads a software flow control template.

   AT&F2&W <Enter>

9. Set your software to the proper flow control setting—RTS/CTS for hardware flow control, XON/XOFF for software flow control. Also, you may have to disable the one you are not using.

CONNECTING TO THE USR BBS

If you would like to connect to the U.S.Robotics Bulletin Board System (BBS), follow these instructions.

1. Turn on your modem and communications software.

2. Put your computer in *Terminal mode*. Enter the following command:

   ATDT 1 708 982 5092 <Enter>

3. When you connect with the BBS, answer YES to the graphics prompt, and then enter your name and password.

4. Press enter with each prompt until you come to the Main Menu. Select the appropriate letter to perform the desired function.

5. When you are through, press G (Goodbye) to exit the BBS.

WINFAX LITE TIPS
(Fax modem and PC-compatible users only)

✍ **NOTE:** The following is only supplemental information. For complete details see the *WinFax LITE User's Guide.*

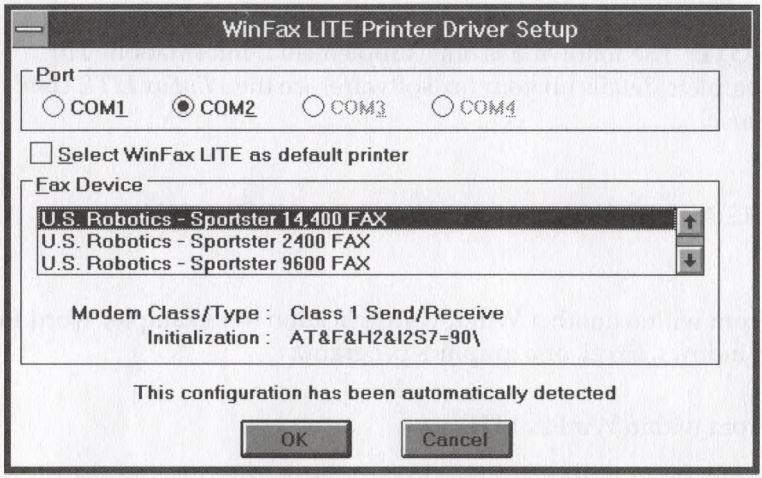
1. Exit any communication software program that might try to access the modem during installation.

2. Turn your modem ON before installing WinFax LITE. This is so the fax software can determine the modem type and serial port used.

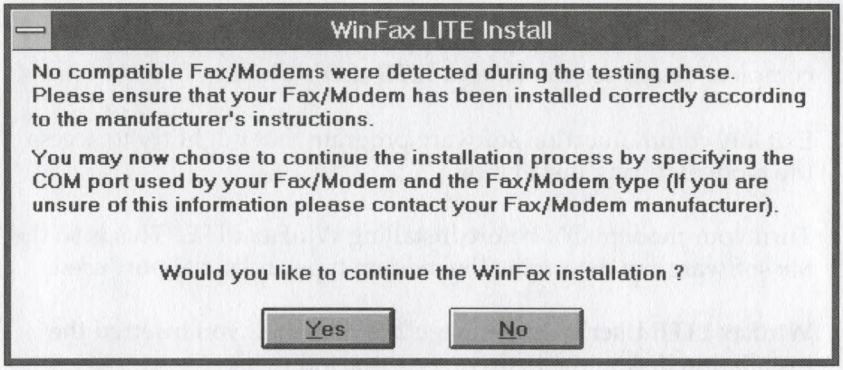
3. **WinFax LITE User's Guide, page 2-5, Step 4:** If you inserted the installation disk in the B: drive, type the following:

   B:\INSTALL

4. **WinFax LITE User's Guide, page 2-6, Step 5a:** Accept the COM port selection, and verify the fax modem selection. If your modem is not highlighted, with your mouse, click on the down arrow to the right of the modem list and hold it down until you have highlighted the proper U.S. Robotics—Sportster FAX modem. Then click on OK.



✍ **NOTE:** If WinFax LITE does not find your fax modem, the following screen appears.


WinFax LITE Install
No compatible Fax/Modems were detected during the testing phase. Please ensure that your Fax/Modem has been installed correctly according to the manufacturer's instructions.
You may now choose to continue the installation process by specifying the COM port used by your Fax/Modem and the Fax/Modem type (If you are unsure of this information please contact your Fax/Modem manufacturer).
Would you like to continue the WinFax installation ?
Yes
No

Click on YES and manually select the COM port you are using (typically COM2) and your modem type (for example, U.S. Robotics—Sportster 14,400 FAX).

Sending a Fax with WinFax LITE

✍ **NOTE:** The following is only supplemental information. For complete details on your fax software, see the *WinFax LITE User's Guide*.

THERE ARE BASICALLY TWO WAYS TO SEND A FAX:

- From within another Windows application (for example, Word for Windows, Excel, or a graphics program).
- From within WinFax LITE.

From Within Another Windows Application

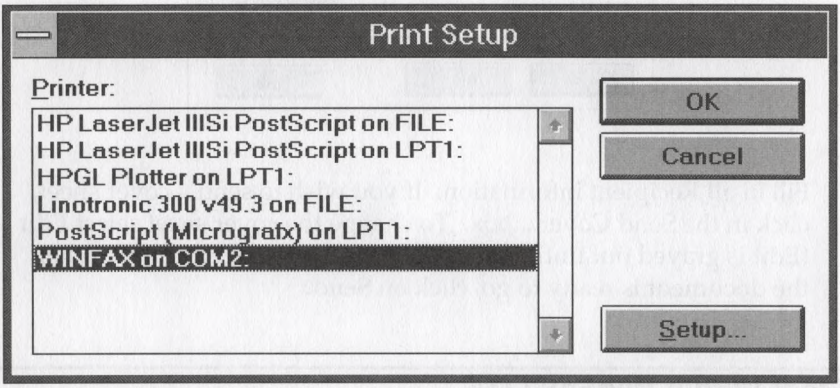
Use this method when you wish, for example, to fax a document directly from your Windows word processor, spreadsheet, or other Windows program.

✍ **NOTE:** When you install WinFax, it adds a fax printer driver to your WIN.INI file.

1. Open the application and select the document you wish to send.

2. From the File menu, select Print Setup (also called Target Printer or Change Printer, among others).

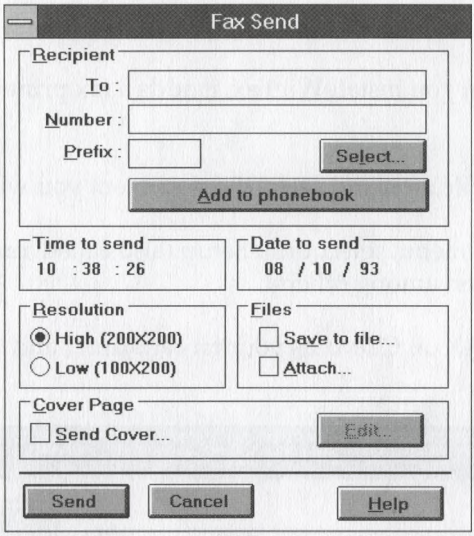
3. Select WINFAX on COM*x* as your target printer and click on OK.



4. A WinFax Setup menu may appear depending on the application you are using—make all necessary adjustments and click on OK.

5. From the File menu select Print. You can select the whole document, the current page, or selected pages. Click on OK.

6. After the software displays a message that your selection is printing, the Fax Send menu appears.



7. Fill in all Recipient information. If you wish to send a cover sheet, click in the Send Cover... box. To change the cover sheet select Edit (Edit is grayed out until you click in the Send Cover... box). When the document is ready to go, click on Send.

From Within WinFax LITE

Use this method when you just want to fax a short message.

1. Open WinFax LITE.

2. From the File menu select Fax. The Fax Send menu appears.

3. Fill in all Recipient information and then click in the Send Cover... box. Select Edit, and type your message directly on the cover sheet. When the document is ready to go, click on Send.

TROUBLESHOOTING

YOUR

SPORTSTER

MODEM

TROUBLESHOOTING

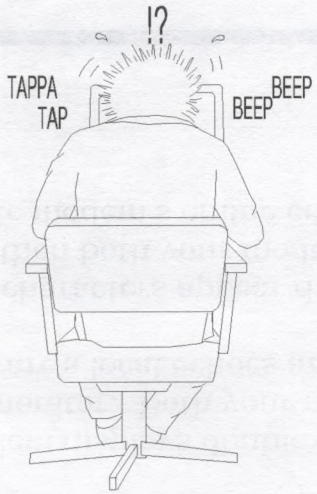
YOUR

SPORTSTER

MODEM

PROBLEM

You try issuing AT commands to the modem through the communications software, but nothing seems to work.



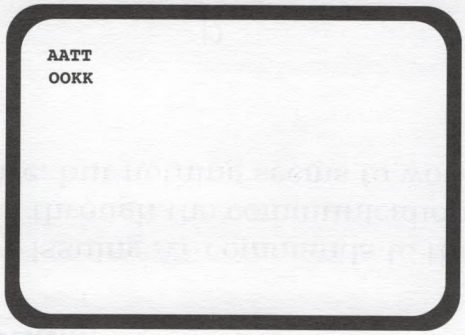
SOLUTION

- Make sure you set the correct serial port in your communications software, and/or in your Windows' Control Panel.
- Set the serial port rate in your communications software.
- Make sure the computer is in *Terminal mode.*
- Type in all upper (AT) or lower case (at).
- DIP Switch 3 must be DOWN (result codes).
- DIP Switch 8 must be DOWN (smart mode).

PROBLEM

Your modem displays double characters on your monitor. Both your modem's and software's local echoes are on.

If double characters appear during data transfer, then both your modem's and the remote modem's online echoes are on.



SOLUTION

- Turn the software's local echo off,

During a data transfer...

- Type the following to return to online command mode:

  +++

  Then type the following to turn off online echo and return online:

  ATF1O <Enter>

  or

- Terminate the call, hangup, turn off online echo (ATF1) and call again.

PROBLEM

You do not hear a dial tone from the modem's speaker after issuing the following manual Dial command:

ATD <Enter>

SOLUTION

- Increase the volume. The dial is on the left side of the modem.
- Make sure the phone cord from the wall jack is connected to the phone jack furthest from the DIP switches on the back of the modem.
- If there still is no dial tone, issue the following command to suppress the NO DIAL TONE result code:

  ATX3 <Enter>

  Then type the following:

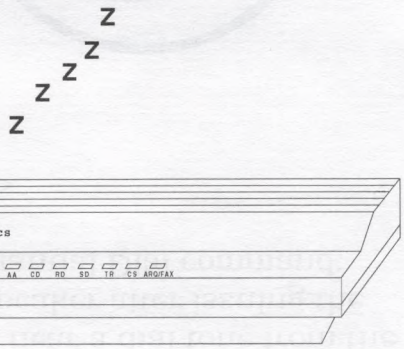
  ATD <Enter>

  Press any key to hang up the modem.

PROBLEM

Your modem doesn't go off hook to dial a number.

Your modem doesn't answer the phone.



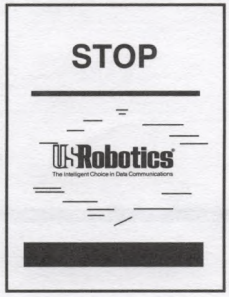
SOLUTION

- Review your *STOP* guide and your software manual to see what Data Terminal Ready (DTR) operations are required. You may need to reset DIP switch 1.
- Make sure DIP switch 5 is set UP.

NOTE: If you change a DIP switch setting, power the modem off, and then on, to let the changes take effect.

PROBLEM

You set the modem's DIP Switches according to the *STOP* guide and your software does not work.



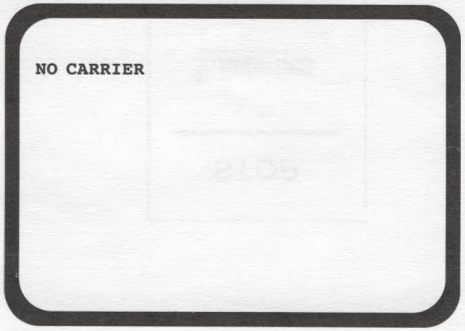
SOLUTION

- You may have a newer version of the software.

  Try setting DIP switches 3, 5, 8 DOWN and the rest UP.

PROBLEM

Both modems exchange carrier signals, but fail to establish a communications link.



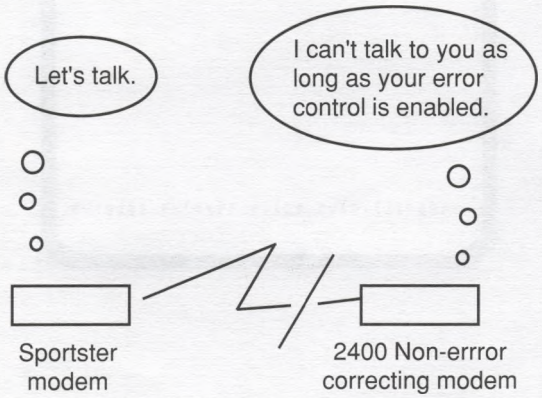
SOLUTION

- Place the call again. The telephone company routes even local calls differently each time you call.
- Call a different modem to see if the problem persists. The problem may be with the modem you first tried to call.
- The remote modem might be an older 2400 bps modem that does not support error control. Disable error control with the following command:

  AT&M0 <Enter>

PROBLEM

Your modem doesn't connect at 2400 bps with a 2400 bps modem.



SOLUTION

- The remote modem might be an older 2400 bps modem that does not support error control. Disable error control with the following command:

  AT&M0 <Enter>

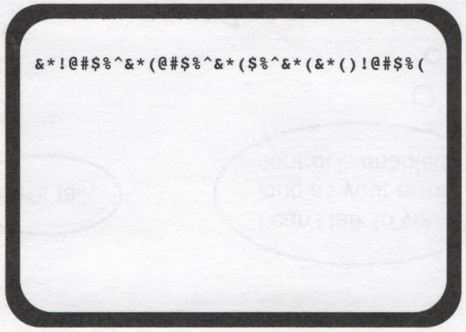
- Try connecting with the remote modem again.

  NOTE: When the call is finished, remember to reset the modem:

  ATZ <Enter>

PROBLEM

During data transfer, your screen displays random or garbage characters.



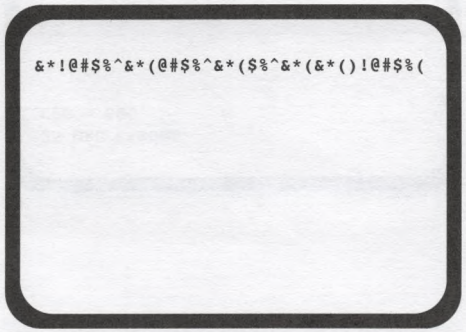
SOLUTION

- Set your software to the same serial port rate, word length, parity, and Stop bits as the remote modem.
- Make sure that your software and modem are set to the same flow control setting, and to either a fixed or variable serial port rate.
- Disable any Terminate and Stay Resident (TSR) programs running in the background.
- **PC Users:** There is a chip (UART) in the computer that handles serial data transfer. High speed data transfers are improved if a 16550 UART is present.

<continued on next page>

PROBLEM

During data transfer, your screen displays random or garbage characters <continued>.



SOLUTION

DO YOU HAVE A 16550 UART?

- **Windows Users:** Type the following at your Windows' directory prompt:

  MSD <Enter> <Enter>

  Type **C** for COM ports to see UART type.

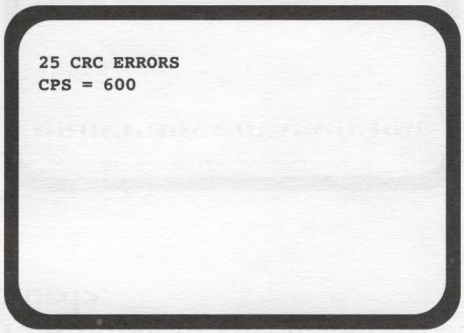
- **Non-Windows Users:** Consult your computer documentation.

If no 16550 UART, lower the serial port rate to 19.2K bps as a temporary solution.

A more permanent solution is to purchase a U.S.Robotics High Speed Dual Serial Board. These come with two 16550 UARTS. Consult your dealer for details.

PROBLEM

Your communications software is reporting many Cyclic Redundancy Check (CRC) errors and low Characters Per Second (CPS) when transmitting files.



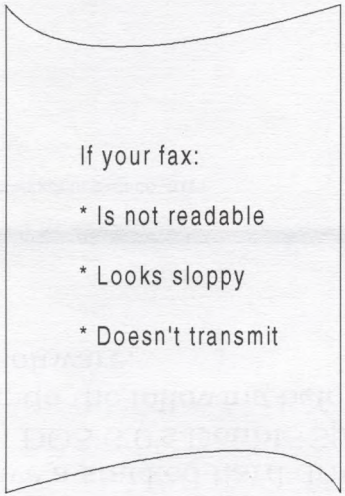
SOLUTION

- You might have a bad phone line. Place the call again. The phone company routes even local calls differently each time you call.
- If your serial port rate is set to 38.4K bps or higher, this problem could occur if your serial port is not using a 16550 UART.

  See the previous page for information on determining if you have a 16550 UART, and what to do if you do not.
- Disable any TSRs that are running.
- Try a different file transfer protocol.

PROBLEM

Errors are occuring in your V.17 fax transmissions (Sportster 14,400 modems only).

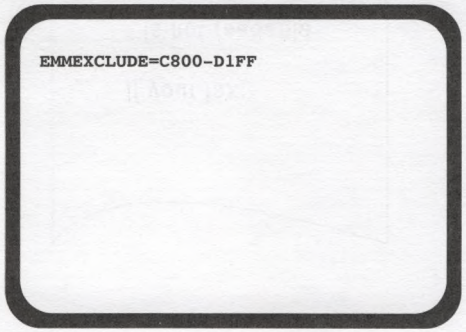


SOLUTION

- Disable any TSRs that are running in the background.

PROBLEM

If you have a stacked hard drive or you have run DOS 6.0's Double Spaced program, do the following before running any fax software.



SOLUTION

Windows Users:

- Open Windows' SYSTEM.INI file.
- Add the following line under the [386 Enh] header:

  EMMEXCLUDE=C800-D1FF

Non-Windows Users:

- Open DOS' CONFIG.SYS file.
- Add the second line below the first:

  device=c:\dos\himem.sys
  device=c:\dos\emm386.exe noems x=c800-d1ff

When you are through, reboot to effect the changes.

PROBLEM

If you are running DOS 6.0, run the following DOS program before you run your fax software.

Type VER at the DOS prompt to determine your version of DOS.

```
C:\>ver
MS-DOS Version 6.00
```

SOLUTION

- Run the program MEMMAKER.EXE from the DOS directory prompt.

  This program loads all of your TSRs in the most efficient order.

ARE YOU STILL HAVING PROBLEMS?

- Review this manual as well as the *User's Guide* to see if you missed anything.

- Call or visit your modem dealer. They will be able to give you the assistance you need. This is much more efficient and time-saving than returning the modem to U.S.Robotics.

- If your dealer can't help you, call our Technical Support at 800-982-5151, Monday–Friday from 8 A.M to 6 P.M. (CTZ). Be sure to have the modem's serial number and proof of purchase handy when calling, or send copies if contacting us by mail.

- You may also contact Technical Support by fax at 708-982-0823.

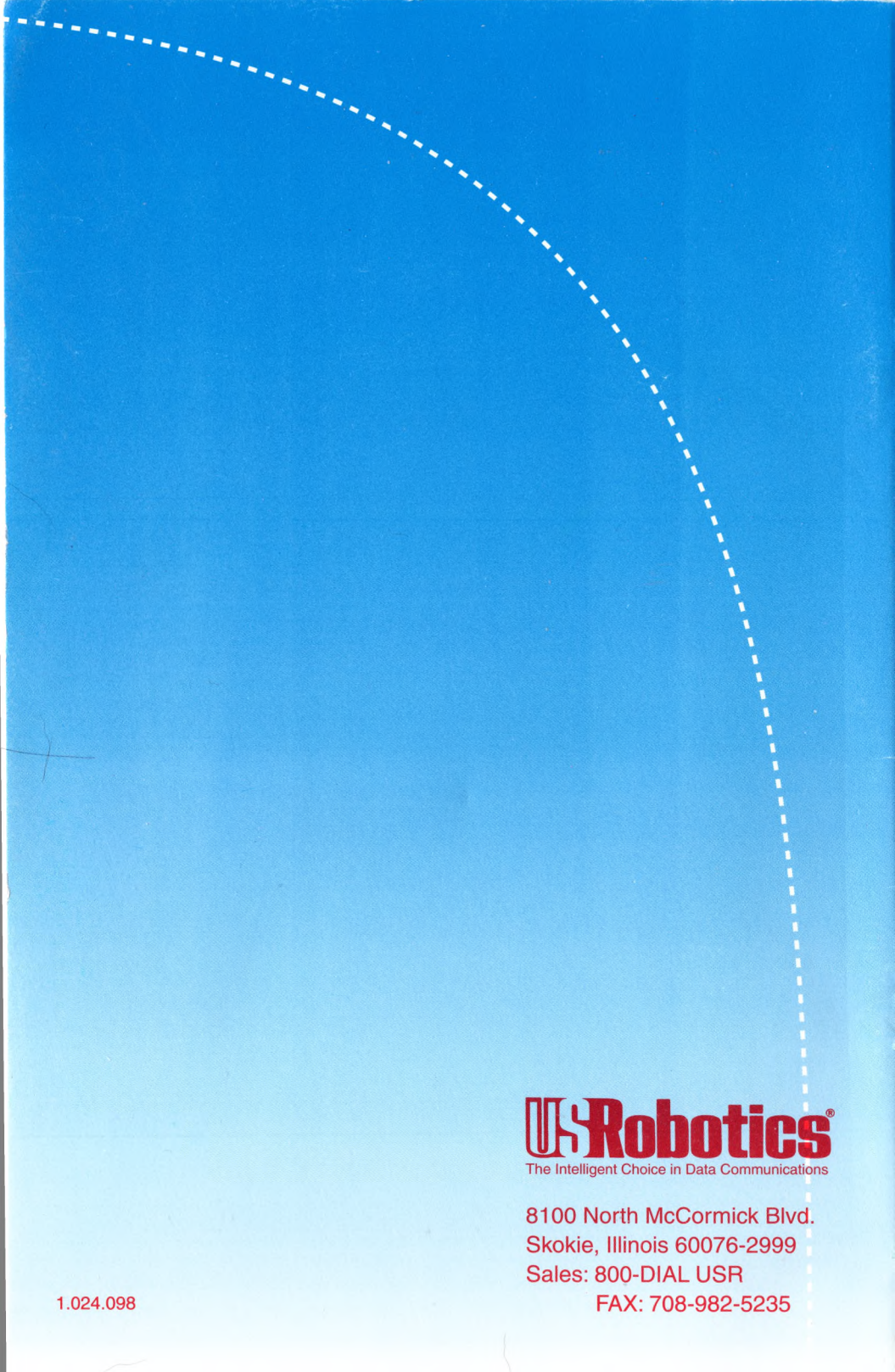
IF YOU MUST RETURN THE MODEM TO US . . .

- The Service Rep. you talk to will give you a Return Materials Authorization (RMA) number.

- Ship the unit, postage paid, in a strong box of corrugated cardboard with plenty of packing material (preferrably the original container).

- Include your RMA number, name and address on the shipping label as well as inside the package.

- Ship to the following address:
  Technical Support Department
  U.S.Robotics, Inc.
  8100 N. McCormick Blvd.
  Skokie, IL 60076-2999



8100 North McCormick Blvd.
Skokie, Illinois 60076-2999
Sales: 800-DIAL USR
FAX: 708-982-5235

1.024.098